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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,229	05/07/2001	Sung Rong Jo	P0239/US/SH	8060
7055	7590	10/03/2005	<div>EXAMINER</div> <div>KRAMER, DEVON C</div>	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			<div>ART UNIT</div> <div>3683</div>	<div>PAPER NUMBER</div>

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/849,229

Applicant(s)

JO, SUNG RONG

Examiner

Devon C. Kramer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 2-4, 6, 8-10, 12-21 and 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 7, 11, 22, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2) Claims 1, 5, 7, 11, 22 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al (5096029) in view of Sigsworth (3183064).

Re: claims 1, 22 and 24-25. Bauer et al show in figure 2 a gas opening/closing pin 23 which opens and closes a gas inlet and outlet 55 formed in a pipe holder 12 which seals one end portion of a cylinder 1 and moves the position of a piston 21 in the cylinder, wherein at least one recess portion d'' which opens the gas inlet and outlet is formed on a side of the outer peripheral surface of the central portion of the gas opening/closing pin and one of an integrally formed washer-shaped boss body portion (46) is formed at a lower end of the opening/closing pin. Bauer et al lacks the teaching of the streamlined recess not extending around the entire outer periphery of the central portion.

Sigsworth teaches a streamlined recess (14, 14a) in an arrangement for controlling the flow of gas.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the pin of Bauer et al with the streamlined recess as taught

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by Sigsworth merely to provide a communication channel adjacent the port and to cut down on the machining costs and to provide a means to allow gas to flow.

In re claim 5, Bauer et al teaches the pin as a bar. The dictionary defines a bar as metal. Col. 3 lines 25-27

Re: claim 7, Bauer et al., as modified by Sigsworth, describe the invention substantially as set forth above, but are silent as to the gas opening/closing pin being a non-metal. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the pin of Bauer et al to have been made of non-metal to provide a pin that is structurally durable or non-corrosive, respectively, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Re: claim 11. Bauer et al as modified by Sigsworth, describe the invention substantially as set forth above, but fail to show the limitation of the at least one recess portion comprising a plurality of streamlined-shaped recesses. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the pin of Bauer et al, as modified by Sigsworth, to have included a plurality of streamlined recesses to increase the total amount of fluid flow through the pin since in In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960) the court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced.

Response to Arguments

3) Applicant's arguments filed 7/26/05 have been fully considered but they are not persuasive. Applicant argues that the boss shaped member of Bauer et al cannot be considered an integrally formed washer-shaped boss. Applicant relies on the premise that all washers are flat, but this is not true. Please note the cited patent applications to Monteath, Schatzel, Solomon, Carr et al, and Kurczynski which show washers which are not flat. For this reason, the examiner has called the disk 46 an integrally formed washer-shaped boss. Further, applicant argues that there is no motivation to combine the two references. Please note that Bauer et al teaches a gas opening closing pin and Sigsworth teaches a gas regulation device, both references classified on the same class 251. Both of the pins of Bauer and Sigsworth are used to regulate gas flow. Further, in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both references teach a pin member used to regulate gas flow and one of ordinary skill in the art would know to utilize the streamlined recess on the pin of Sigsworth in order to save materials and cost.

Conclusion

- 4) **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

- 5) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C. Kramer whose telephone number is 571-272-7118. The examiner can normally be reached on Mon-Fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Devon C Kramer
Examiner
Art Unit 3683

DK

Devon Kramer 9/21/05
DEVON C. KRAMER
PATENT EXAMINER

Robert A. Siconolfi 9/28/05
ROBERT A. SICONOLFI
PATENT EXAMINER